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Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI): Characteristics, similarities, complementarities and differences, policy implications and development impact

Issues for consideration

Note by the UNCTAD secretariat

Executive summary

Ongoing discussion in various forums is focusing on the design of appropriate policies and regulations to be adopted at the national and international level in order to reduce the volatility of capital flows. In this context, it is felt that a better understanding of the specific attributes of different types of flows, in particular foreign direct investment (FDI) and foreign portfolio investment (FPI), could contribute to assessing the impact of these flows on recipient economies and defining policy approaches towards investment flows. A few salient comparative characteristics of FDI and FPI may be noted: FDI is sector- and firm-specific, while FPI is not; FDI can transfer technology and improve market access, while FPI can help to strengthen the process of domestic capital market development; FPI is more volatile than FDI; FDI flows appear to be sustainable, while FPI is likely to be reduced, in the aftermath of the recent financial crisis; only a handful of countries are hosts to large amounts of FDI and FPI.

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The dissimilarities and complementarities between FDI and FPI would suggest that policy regimes concerning the two will be different. Countries should also liberalize FPI, while liberalizing FDI. However, policies to attract FPI should proceed in a more cautious way, as the volatility of FPI flows can have a negative impact on recipient economies: countries should be allowed to adopt measures (other than fiscal and monetary measures) to "fine-tune" capital inflows and outflows in order to avoid boom-bust cycles of capital flows, especially of portfolio investment. Furthermore, strong domestic financial systems, regulations and supervision are essential elements to guarantee appropriate liberalization. Consideration should also be given to designing measures and support to enhance access by emerging markets to some types of portfolio investment which can provide relatively stable sources of finance.

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Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI): Characteristics, similarities, complementarities and differences, policy implications and development impact

Introduction

1. The eruption of the financial crisis in East Asia has raised a few important questions concerning the benefits of capital flows to emerging market economies. Ongoing discussion in various forums is focusing on the design of appropriate policies and regulations to be adopted at the national and international level in order to reduce the volatility of capital flows. In this context, it is felt that a better understanding of the specific attributes of different types of flows could contribute to assessing the impact of these flows on recipient economies and define approaches to attracting or controlling them. This question has assumed additional importance against the backdrop of discussion concerning, in particular, the definition and coverage of investment to be included in any bilateral, regional or multilateral investment agreement. It is also related to the debate on the liberalization of capital flows: which types of flows should be liberalized first, and how to attract more stable investment flows?

2. It has been noted that private capital flows are assuming an increasing role as a source of finance for emerging markets[1]. The composition of these flows has also changed dramatically, with foreign direct investment (FDI) and foreign portfolio investment (FPI) taking the largest shares of total net resource flows to developing countries. In 1985 international bank lending accounted for more than 50 per cent of total private flows to developing countries, FDI for 22 per cent and FPI for 18 per cent; in 1997, their respective shares were estimated at 8 per cent, 43 per cent and 48 per cent (the remainder being grants from non-governmental organizations).

3. This changing pattern of capital flows is the result of the process of globalization of production through the internalization of transactions within the transnational corporations (TNCs) (inducing more FDI activities) and the increasing securitization of financial transactions (inducing more cross-border FPI in equities and bonds)[2]. Both types of flows have different characteristics and might have different implications for the development strategies of recipient countries. The following sections of this paper will analyse some of the issues related to the

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[1]Information on total net resource flows to developing countries as reported by the Development Assistance Committee of the Organization for Economic Co-operation and Development (OECD) shows that in 1985, official development finance still accounted for 56 per cent of total net resource flows to developing countries, while in 1997 it accounted for only 23 per cent of the total.

[2]The securitization of capital flows reflects fundamental structural changes in international financial markets and the growing role of institutional investors in the OECD countries. See UNCTAD: *The growth of domestic capital markets, particularly in developing countries, and its relationship with foreign portfolio investment*, TD/B/COM.2/EM.4/2, 19 March 1998.

differences, similarities or complementarities of FDI and FPI and the policy implications derived therefrom[3].

I. Definition and statistical recording problems

4. The definition of foreign investment, based on balance of payments transactions between residents and non-residents, refers to investment made by individuals or enterprises that have their centre of economic interest in an economy other than the economy in which they invest[4]. Under the definition and classification of international accounts presented by the International Monetary Fund (IMF) Balance-of-Payments Manual, foreign investment is classified into the following components: (a) direct investment; (b) portfolio investment; (c) other investment.

5. *Foreign Direct Investment* is the category of international investment in which a resident entity in one economy obtains a lasting interest in an enterprise resident in another. A lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the investor on the management of the enterprise. The criterion used is that "a direct investment is established when a resident in one economy owns *10 per cent or more* of the ordinary shares or voting power of an incorporated enterprise, or the equivalent for an unincorporated enterprise. All subsequent transactions between affiliated enterprises, both incorporated and unincorporated, are direct investment transactions". Direct investment includes equity capital, reinvested earnings, and other capital (or intercompany debt transactions). Direct investment enterprises comprise subsidiaries (in which a non-resident investor owns more than 50 per cent of the capital), associates (in which a non-resident investor owns 50 per cent or less) and branches (wholly or jointly owned unincorporated enterprises).

6. *Foreign Portfolio Investment* includes a variety of instruments which are *traded (or tradeable)* in organized and other financial markets: bonds, equities and money market instruments. The IMF even includes derivatives or secondary instruments, such as options, in the category of FPI. The channels of cross-border investments are also varied: securities are acquired and sold by retail investors, commercial banks, investment trusts (mutual funds, country and regional funds, pension funds and hedge funds). Because of the lack of transparency on transactions undertaken by some of these investors, it is still difficult to get a precise estimate of the size of FPI made in emerging markets.

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[3]The analysis is based on a comprehensive study of the interrelationship between FDI and FPI undertaken by the UNCTAD secretariat for the Commission on Investment, Technology and Related Financial Issues; see: *Comprehensive study of the interrelationship between foreign direct investment and foreign portfolio investment*, study by the UNCTAD secretariat, (UNCTAD/GDS/GFSB/5), forthcoming.

[4]See IMF: *Balance-of-Payments Manual*, Fifth edition.

7. There are different sources of FPI data: the IMF, the World Bank, the Institute of International Finance, source countries (such as United States Treasury) and some commercial companies tracking investment funds (such as Micropal of Standard and Poor's). Needless to say, data shown by different sources widely differ. The IMF has issued a *Survey Guide* to assist reporting countries in preparing for the IMF's Coordinated Portfolio Investment Survey[5]. Not all countries have reported statistics on FPI in detail. The World Bank Debt Reporting System also contains estimates of FPI for developing countries only. For any given country, IMF and World Bank data can diverge to a large extent.[6]

8. Some source countries, most particularly the United States and Japan, collect data on portfolio transactions between residents and non-residents. The Bank of Japan has recently published statistics on Japanese portfolio investment abroad, but these statistics remain at a fairly aggregate level. The United States Treasury data represent the most comprehensive source-country data available worldwide, reporting on a monthly basis United States residents' gross portfolio purchases and sales of foreign (non-United States) stocks and foreign (non-United States) long-term bonds (bonds with an original maturity of over one year). These data are collected from banks, securities dealers, investors and "other entities" that deal directly with foreign residents regarding transactions in foreign securities. There are, however, limitations in interpreting these data as literal indications of portfolio investment flows between United States and non-United States residents[7]:

(a) The data reported by country refer to the country where the foreign counterpart to the transaction is physically located, which does not necessarily correspond to the country of residence of the issuer of the foreign security. Furthermore, a security dealer resident in the United States may undertake these transactions on behalf of a resident of a foreign country.

(b) The data also appear to be distorted by the large volume of transactions that take place through international financial centres where securities can be issued on behalf of residents of third countries and traded in these centres.

(c) Likewise, the issuance and trading of depositary receipts issued by non-United States resident companies could be counted as United States securities.

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[5]All in all, 37 countries indicated willingness to participate in the Coordinated Survey, which is expected to be available by the end of 1999.

[6]Sómetimes capital flows data as reported by national central banks diverge from those reported by the IMF. The UNCTAD secretariat has found inconsistencies between these two sources of data for some countries.

[7]For detailed explanations of these limitations, see UNCTAD: *Comprehensive study of the interrelationship between FDI and FPI*.

9. Note that these remarks equally apply to portfolio data reported by the IMF balance-of-payments accounts, based on transactions between residents and non-residents. In countries which serve as international financial centres, it is difficult to identify the country of origin of companies whose securities are traded in these centres.

10. Finally, commercial sources, such as Micropal, compile data on emerging market equity and bond funds, closed-end and open-end, and reports on their size (in terms of net asset value) and performance (returns to shareholders). Funds are classified as global, regional and country funds. Some observers have used changes in net asset values of these funds adjusted for changes in country or regional market price indices to reflect changes in portfolio investments in the recipient countries[8]. It can be shown that this methodology is misleading for many reasons[9]. First, the market price index does not necessarily reflect the prices of assets in which the funds have invested. Secondly, the prices of closed-end funds vary independently from the prices of the underlying assets. Thirdly, some funds are not fully invested in emerging markets and sometimes may invest a certain amount in cash.

11. In short, there is no single source of data on FPI and it is difficult to have a precise indication of cross-border portfolio flows. The IMF seems to have the most reliable figures provided by recipient countries, although the country coverage is far from complete and it is difficult to identify exactly the nationality of the purchaser or seller, or issuer of securities.

12. Besides this problem of accuracy of FPI estimates, there is also the problem of "borderline" cases where it is difficult to classify an investment as FDI or FPI. In countries where FPI is liberalized, a portfolio investor might buy more than 10 per cent of the shares of companies without having a "lasting interest" or a desire to control the companies. And yet that investor's investment can be classified as FDI. In other cases, foreign subsidiaries can issue bonds which are for the most part purchased by parent companies; these transactions, which are in fact FDI, can be recorded as FPI. Using the control interest as a dividing line, there are circumstances where FDI can turn into FPI through the dilution of ownership and loss of control. Conversely, FPI can be transformed into FDI, if the investor decides to have a management interest in the companies whose assets it had earlier purchased as FPI.

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[8]See: John Rea: "United States emerging market funds: Hot money or stable source of investment capital?", *Perspective*, Investment Company Institute, December 1996.

[9]For a critique of this methodology, see UNCTAD: *Comprehensive study*....

II. Contribution to development

A. Nature of investment contracts

13. Before analysing the specific contribution that FDI and FPI can make to the development of emerging market economies, as well as their complementarities (and dissimilarities), it is important to understand the nature of the contracts linking different types of investors and the entities/countries in which they invest. Differences arise among the three forms of investment, FDI, FPI and bank loans, in terms of ownership, sharing of risk and form of reward.

(a) FDI is an internalized investment flow (within the same TNC) which includes capital assets as well as intangible assets. The investor keeps control of the subsidiary that it has established and derives benefits from its investment (and hence increases the overall profit of the TNC group as a whole) through:

- increase in sales (either on local markets or through exports to third markets);
- reduction of costs of production;
- increase in production efficiency of the group as a whole.

The foreign investor assumes the operational risks of its enterprise.

(b) FPI is a purchase of securities (equities or bonds) issued by a company or government entity of a foreign country. FPI is mediated by financial markets and thus requires the existence of fairly liquid capital markets, domestic or international. From the point of view of the recipient country, FPI does not result in a loss of control of ownership of the issuing companies (which can be fully owned local enterprises or also joint ventures or subsidiaries of TNCs). Portfolio investment is "purely" financial and is not accompanied by a transfer of intangible assets and management know-how. The prime motivations of portfolio investors are yield-seeking and risk-reducing through portfolio diversification.

The investor expects to share in the profits realized by the company/entity by receiving dividends/yields or capital gains. But the investor is also sharing the risk: if the profits are high, asset returns are also high; in cases of losses the investor will also incur losses through declines in the asset prices. In the case of bonds, the investment is in principle of determined duration. However, investors can sell bonds before maturity. The price premium/discount on bonds depends on the risk represented by the borrower, but also on the evolution of interest rates on financial markets. In the case of equities, investment has no determined duration, but can be sold at any time. Risk and interest rates also influence the prices of equities.

If securities are traded on local capital markets, massive inflows or outflows of foreign investment can create shock waves on local markets, and can also induce or exacerbate

fluctuations in exchange rate; in this case foreign investors assume the exchange rate risks. If securities are traded on international capital markets (such as American Depository Receipts (ADRs)), internationally issued bonds and equities), recipient economies can be shielded from the impact of changes in asset prices; in this case, issuers from emerging markets assume the exchange rate risks.

(c) A bank loan is a contract of determined duration (the maturity of the loan) between the lender and the borrower. The lender will hold the contract until maturity and will receive interest and principal amortization according to the schedule stipulated in the contract. The expected stream of payments until maturity is determined by the contract and does not vary with changes in the payment capacity of the borrower: there is thus no risk-sharing.

B. Inflow of foreign savings

14. Balance-of-payments data over the period 1990-97 for a sample of 30 developing countries and countries in transition[10] indicate that for two thirds of this sample, on average, FDI as a percentage share of capital flows, was larger than FPI. The nine countries[11] for which FPI exceeded FDI are in general upper-middle-income countries (except for India); all have well developed capital markets (the ratios of capital market capitalization to GDP exceed the average for middle-income countries). It is also worth noting that some countries, such as Argentina, Brazil, Mexico and the Republic of Korea, attracted more bond investments than equities.

15. FDI inflows as a share of gross fixed capital formation in developing countries in 1996 amounted to 8.7 per cent[12]. This share is increasing over the years (in 1992, it was equivalent to 4.2 per cent). Cross-border mergers and acquisitions (M&As) accounted for the bulk of the increase in FDI flows; their value in relation to total FDI inflows (in developed and developing

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[10]These 30 countries are those which have reported data on FPI over the period 1990-97. Africa: Egypt, Morocco, Nigeria, Senegal, South Africa, Tunisia; Asia: Bangladesh, China, India, Indonesia, Republic of Korea; Kuwait, Malaysia, the Philippines, Saudi Arabia, Singapore, Thailand; Eastern Europe: Czech Republic, Hungary, Poland, Russian Federation, Slovenia; Latin America: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, Venezuela. For a more detailed analysis of FDI and FPI flows for these countries, see UNCTAD: *Comprehensive study*.

[11]These nine countries are: Africa: South Africa; Asia: India, Republic of Korea, the Philippines, Thailand; Latin America: Argentina, Brazil, Mexico, Uruguay.

[12]This share differs between regions: 7.3 per cent for Africa, 12.8 per cent for Latin America and the Caribbean, 8.3 per cent for South, East and South-East Asia, 7.5 per cent for Central and Eastern Europe. See: UNCTAD: *World Investment Report 1998*, Annex table B.5.

countries) rose from 49 per cent in 1996 to 58 per cent in 1997[13]. Among developing countries, South, East and South-East Asia accounted for the majority of M&A sales, in particular after the 1997 financial crisis. Significant increases in M&A sales in Latin America and Central and Eastern Europe were also recorded in 1997, mainly on account of privatization.

16. On a net transfer basis, profit remittances should be deducted from FDI inflows in order to show the actual amount of additional investible resources. As subsidiaries mature, they rely increasingly on internal funds to finance expansion, earn increasing profits and generate increasing royalty payments. In addition, reverse flows through the less transparent practice of intra-company transfer prices can be at times important, especially when TNCs use it to avoid taxes or to hedge against exchange rate risks. And finally, subsidiaries rely more on local borrowing for expansion, especially when there are high exchange risks.

17. FPI, on the other hand, enlarges the pool of risk capital available for companies in emerging markets. It is estimated that international equities and debt securities issued by developing countries and countries in transition were equivalent to nearly 17 per cent of the total amount raised by all countries on international capital markets in 1996 and 1997[14]. However, the financial crisis has more than halved the amount of money raised by these countries in 1998, when their share fell to 7 per cent of the total. In addition, portfolio investors also purchase securities issued on local markets, adding much liquidity to these markets. The crisis has induced some panic sales by foreign investors.

18. The increased access to foreign portfolio investment, especially during the boom periods of 1993-94 and 1996-early 1997, was accompanied by a reduction in the cost of capital. It was reported that the average spread on new international bond issues by developing countries (against United States Treasury bonds of comparable final maturity and coupon) fell from 355 basis points in 1994 to 258 basis points in the first eight months of 1997[15]. As the interest rates on international financial markets were much lower than domestic interest in practically all emerging markets, even if spreads are added, the cost of capital was much reduced for borrowing firms from emerging markets. Likewise, during the years of high foreign equity inflows (1993, 1996 and 1997), the local stock price indices of the major emerging markets which attracted most

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[13]See: UNCTAD: *World Investment Report 1998*, Chapter 1, section 3: Mergers and Acquisitions, pp.19-23.

[14] Data on international issues of equities and debt securities are reported by the Bank for International Settlements, in its *Quarterly Review on International Banking and Financial Market Developments*. Developing countries and countries in transition issued international equities for the amount of 15.0 billion $ in 1996, 29.3 billion $ in 1997 and 11.2 billion $ in 1998; these countries issued international debt securities for the amount of 88.1 billion $ in 1996, 89.2 billion $ in 1997 and 37.1 billion $ in 1998.

[15]See: World Bank: *Global Development Finance, 1998*, p.13.

of these flows increased tremendously[16], thus allowing companies to have cheaper access to equity finance.

19. As in the case of FDI, if payments of coupons and dividends are deducted, the net transfer on account of portfolio inflows is reduced. Note, however, that because dividends depend on the profitability of the enterprises, there is a risk-sharing role of equity investment. Because of the tradeable nature of portfolio investment, massive inflows or outflows can destabilize thin local capital markets.

C. Business environment

20. It is often asserted that FDI brings along transfer of technology and management know-how, together with improved foreign market access. TNCs from developed countries undertake a significant portion of global research and development (R&D) activities, own or control a significant proportion of new technologies and generate a high share of new products. They can thus act as an important channel for transfer of technology to host countries. But the question of technology transfer is complex. To what extent do TNCs undertake technology generation activities (R&D and innovations) in their affiliates or under non-equity arrangements (such as licensing) with firms in developing countries? Do foreign affiliates spur technological upgrading in domestic firms, through backward and forward linkages, imitation, competition and employee turnover?

21. FPI, on the other hand, can also contribute to enhancing the business environment in which firms are operating. It was said earlier that portfolio investment (domestic and foreign) requires the existence of well-functioning financial markets. An efficient financial system should perform three functions[17]:

- adequate mobilization of savings (including foreign savings);
- efficient intermediation between investors and borrowers;
- efficient allocation of resources to productive uses.

22. These functions would be carried out most effectively if there were many different types of financial institutions and instruments which responded to different risk/return and time preferences of investors and to different cost evaluation and risk-hedging behaviour of fund users. The financial system would have to provide the basic short-term (deposit-type or money market) and long-term (bonds) debt instruments, as well as risk capital (stocks and related instruments), matching the different financing needs of the economy. In fact one of the causes of the recent financial crisis in Asian countries was the weakness of the financial systems in these countries,

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[16]See: International Finance Corporation: *Emerging Stock Markets, Factbook 1998*.

[17]For a more detailed discUnited Statession of the functions of an efficient financial system and the role of stock markets, see UNCTAD: *Foreign portfolio equity investment in developing countries: current issues and prospects* (TD/B/WG.1/11, 26 October 1993).

which rely excessively on banks for financial intermediation. High-maturity mismatch of banks' portfolios has resulted in an acute liquidity crisis after an abrupt interruption of foreign capital inflows. These countries now recognize the benefits of the creation of domestic bond markets, which would allow a dispersion of risks and a stretching of payment maturity, as investors would be more willing to lend on the longer term because they could trade bonds before maturity. Moreover, the existence of well-functioning capital markets is necessary for a financial deepening and enhances competition with banks for financial intermediation, thus contributing to a reduction of the cost of capital for borrowers.

23. FPI is expected to help in the further development of capital markets[18], as it adds liquidity to local markets. As liquidity increases, turnover will also increase and price volatility might be reduced, thus encouraging investors and firms to use capital markets to invest and raise funds through issues of financial instruments. Moreover, foreign investors could improve the standards of local capital markets, as they would be more demanding as to quality of information and disclosure as well as minority protection, and would also require adequate market and trading regulations. Foreign investment could also encourage the development of new institutions and services, such as investment management and financial advisory services, accounting and auditing, market information services and credit rating agencies. This would also contribute to increasing transparency in financial transactions and improving corporate governance.

D. Complementarities and dissimilarities

24. There could be many complementarities between the two types of investment. To begin with, FDI is undertaken by TNCs and is firm- or sector-specific. That is, host countries cannot decide on the destination of these investments. FPI, on the other hand, can fund domestic companies as well as foreign affiliates, is not sector-specific and is hence more fungible. By providing finance and reducing the cost of capital to domestic companies, FPI can increase the companies' competitiveness. Although portfolio investors will invest in "blue chip" companies first, they also take advantage of "price anomalies" by investing in companies with growth potential that appear to be undervalued.

25. One could imagine various linkages between the two types of investment. For example, through backward and forwards linkages FDI can encourage the creation of domestic companies, which in turn would have recourse to FPI for the financing of their expansion. On the other hand, as seen earlier, FPI can encourage the development of domestic capital markets, which then would help to attract FDI. FPI can help strengthen the local financial infrastructure, which can facilitate the operations of TNCs, most particularly when FDI is undertaken through M&As.

26. FPI is a financial investment and hence is more responsive to changes in financial factors. Because it is not linked to any particular firm or sector, it would in principle play a neutral role

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[18]The contribution of FPI to the development of local capital markets is also analysed in: UNCTAD, *The growth of domestic capital markets, particularly in developing countries, and its relationship with foreign portfolio investment.*

in the allocation of resources, channelling finance to the investments which carry prospects of high yields. However, FPI can also exacerbate financial and exchange crisis, as an expectation of devaluation can precipitate an outflow of FPI. In that sense, the macroeconomic impact of FPI is higher than that of FDI. Although massive capital inflow through FDI can also have an impact on the real exchange rate, it is often believed that FDI inflows are offset by imports of capital equipment and components necessary for the production of subsidiaries, thus reducing the impact on exchange rates. But outflows in the form of profit remittances (and transfer pricing) can exert strong balance-of-payments pressure. In addition, massive local borrowing by TNCs' subsidiaries brings the risk of "crowding out" local companies from local capital markets. On the other hand, FDI can have a significant impact at the microeconomic level, shaping the productive structure of a host country.

III. Determinants and comparative volatility

27. There is an equal concentration of both FDI and FPI in a few recipient countries[19], which are generally upper-middle-income countries with diversified economic and financial structures.

A. FDI determinants

28. There has been extensive research on the determinants of FDI, and the findings of this research are summarized below. It is widely agreed that FDI takes place when three sets of determinant factors exist simultaneously (often referred to as the eclectic OLI paradigm[20]: O for ownership-specific advantages, L for location-specific variables and I for internalization advantage):

- The presence of ownership-specific competitive advantages (e.g., proprietary technology or advantages derived from common governance);
- The presence of locational advantages in a host country (e.g., large markets or lower costs of resources or superior infrastructure);
- The presence of superior benefits in an intra-firm as against an arm's-length relationship between investor and recipient.

While the first and third conditions are firm-specific determinants of FDI, the second has a crucial influence on a host country's inflows of FDI. If only the first condition is met, firms will rely on exports, licensing or the sale of patents to service a foreign market. If the third condition is added

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[19]The 10 recipient countries hosting the largest investment funds are Brazil, Chile, China, India, Mexico, Republic of Korea, Russian Federation, South Africa, Taiwan Province of China, Thailand. They also host the largest amounts of FDI.

[20]See Dunning, J.H.: *Multinational Enterprises and the Global Economy* (Wokingham: Addison-Wesley, 1993).

to the first, FDI becomes the preferred mode of servicing foreign markets, but only in the presence of location-specific advantages.

29. The location-specific variables may be related to economic and policy determinants[21]. The main economic determinants are: the size of domestic market; spatial distribution of natural and created resource endowments; input prices, quality and productivity of labour; international transport and communications costs.

B. FPI determinants

30. FPI is mainly driven by motivations related to yield-seeking and risk-reducing through portfolio diversification. The surge in FPI flows in 1993 was explained by a conjunction of several factors, among which:

- Globalization and liberalization of financial markets, which implies that financial capital can move more freely and at lower cost between countries;
- Improvements in economic fundamentals in many emerging markets, resulting in growth rates which were much higher than in OECD countries;
- Favourable global macroeconomic conditions marked by low interest rates and ample liquidity on international financial markets;
- Institutionalization of savings and the proliferation of professional asset management (mutual funds, hedge funds and other investment companies), which reduce the operating costs of financial transactions (as compared with commercial banks);
- Decisive progress in communications and information technology which allow the processing of a large mass of information on countries and companies.

31. These elements form the basis of a strategy of portfolio diversification by portfolio investors. The extension of the capital asset pricing model to a class of cross-border assets led to the conclusion that including emerging markets assets in an investment portfolio would result in higher risk-adjusted returns, as these markets exhibited high growth and low correlation with mature, developed markets.

32. The financial crisis which started in East Asia and spread to almost all emerging markets has forced a reassessment of the benefits derived from portfolio diversification into emerging markets. Not only returns on investment in emerging markets were lower than in OECD markets (especially in the United States market where equity prices kept soaring), but risks and volatility were high. It was found that the International Finance Corporation (IFC) Composite index, the main benchmark for emerging markets, has underperformed the Standard and Poor (S&P) World

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[21] See UNCTAD, *World Investment Report 1998*, Chapter IV, Host country determinants of Foreign Direct Investment, for a detailed analysis of FDI determinants.

index by 43.1 per cent (in dollar terms) over the 1990s[22]. Moreover, the integration of financial markets has increased the correlation between emerging markets and mature markets. The correlation coefficient between the S&P 500 and the IFC Composite increased from 0.27 between 1995-1997 to 0.41 between 1990-1995.

33. These findings are confirmed by replies to a questionnaire sent by the UNCTAD secretariat[23] to a number of fund managers. Fund managers have reported that the prime motivation for investment in emerging markets is to improve portfolio returns. However, over the last eight years, investments in emerging markets have in general decreased the return on global portfolios, especially since the Asian crisis, and have increased their volatility. And yet, despite these mediocre results, fund managers continue to believe in the benefits of diversifying into emerging markets and do not plan to discontinue investing in such markets in the short-, medium- or long-term or to reduce their emerging market investments. Indeed, in the future, investors will look more carefully at macro- and microeconomic policies[24], most particularly at: high economic growth rate, the degree of exchange rate stability, level of foreign exchange reserves, general macroeconomic stability, health of domestic banking system, quality of stock market regulatory framework, quality of domestic accounting/disclosure standards and degree of investors rights protection.

C. Comparative volatility

34. Reports on capital flows in the aftermath of the Asian financial crisis[25] show that FDI flows are the most resilient, as compared with portfolio investment and bank lending. At country level, in general, portfolio investment is more volatile than FDI (as measured by higher coefficients of variation). This is not surprising, as FDI is made with a lasting interest in the host

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[22] See: Financial Times: "High risk, low returns", 21/22 March 1998 (Comments and analysis).

[23] The replies to the UNCTAD questionnaire will be reported in more detail in a forthcoming UNCTAD report: *Comprehensive study*. Managers of 11 emerging market funds and 10 global market funds have replied to the questionnaire.

[24] It is also interesting to note that global funds in general adopt a "top-down" investment strategy (i.e., looking at the macroeconomic environment first), while the specialized emerging market funds adopt a "bottom-up" strategy (looking at companies first).

[25] The Institute of International Finance gave estimates on capital flows to emerging markets, showing FDI values of $111 billion in 1998 and $103.9 billion in 1999; FPI values of $118.3 billion in 1997, $50.7 billion in 1998 and $44.3 billion in 1999; and bank lending equivalent to $121.0 billion in 1996, $24.8 billion in 1997, $ -9.7 billion in 1998 and $ -8.2 billion in 1999. It should be noted that these estimates are very tentative. See Institute of International Finance: "Capital Flows to Emerging Market Economies", 27 January 1999.

country. Moreover, it will be difficult for TNCs to disinvest and sell their foreign affiliates, especially if these are intertwined in international production networks or "sunk" costs are high.

35. On the other hand, portfolio investment is mediated through financial markets and is highly sensitive to changes in the investment environment, which may come from factors internal or external to the recipient economies. One noticeable feature of international financial markets in the 1990s is the shortening of the term of financial transactions. For example, the share of bank loans of less than one year increased from 45 per cent of total bank lending in 1990 to 52.4 per cent in 1998. There has been a shift to securities trading, and the process of financial innovation through the creation of various types of derivatives addressing different risks related to financial transactions has reinforced the securitization of capital flows. Modern risk management techniques of portfolio managers, such as computerized portfolio insurance/programme trading strategies, value-at-risk and mark-to-market models, may exacerbate the movements of asset prices and increase the risk of contagion. In addition, leveraged investment and the pursuit of short-term gains (which bring high levels of bonus to portfolio managers) are factors leading to more volatility on financial markets.

36. The inherent volatility of financial markets would probably not slow down the process of securitization of financial transactions, as investors, and especially institutional investors, earn higher returns on securities investments while having their transaction costs reduced, as compared with using the banking system as a means of financial intermediation.

37. For emerging markets, problems of asymmetric information increase the chance that investors may incorrectly price the risk of making an investment. This could result in an amplification of price fluctuations on these markets, as foreign investors may overreact to any change occurring in their markets. The asymmetry of information can also contribute to a herd-type behaviour, leading to boom-bust cycles of investment and contagious reactions in times of crisis[26].

38. There is, thus, a tendency for portfolio investment to be volatile. Can FDI also exhibit some volatility in response to exchange-rate risks? Exchange-rate risks may induce certain behaviour by TNCs which may reduce the flows of capital to host countries or may exacerbate their balance-of-payments problems[27]. Following are some examples of this behaviour:

- There has been a risk-induced reliance on local currency financing by TNCs,

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[26] See UNCTAD: *"Foreign portfolio investment: implications for the growth of emerging capital markets* (UNCTAD/GDS/GFSB/3), 22 May 1998, and UNCTAD: *The growth of domestic capital markets, particularly in developing countries, and its relationship with foreign portfolio investment.*

[27] The behaviour of TNCs and financial flows is reviewed by Richard E. Caves: *Multinational Enterprises and Economic Analysis*, second edition (Cambridge University Press, 1996), Chapter 6, pp. 133-161.

- A permanent real depreciation of its currency makes the host country more attractive as a site for production to serve the world (or source-country) market but less attractive a site for assembling products for host-market sales that contain substantial source-country components;
- Short-run commitments can be altered within periods for which the TNC can hedge (or possibly forecast) exchange rate movements; in this respect, the TNC might have an advantage in holding information that may help it to take expeditious action in the foreign exchange markets;
- The TNC has a clear advantage in channelling transactions internationally, considering speeding up payments due in a currency expected to appreciate and delaying payments denominated in a currency expected to depreciate;
- The TNC can borrow in a currency expected to depreciate and lend in a currency expected to appreciate; likewise, it can change the currency in which its payables or receivables are denominated;
- It can also cover long or short positions in a foreign currency by a sale or purchase in the forward-exchange market or by negotiated swaps.

IV. Policy implications

39. A few salient characteristics concerning FDI and FPI may be noted in light of the preceding sections:

- Complementarities: FDI is owned by foreign TNCs and is sector- and firm-specific, while FPI in general is issued by local companies or Governments and is not sector-specific;
- Other developmental impact: FDI can transfer technology and improve market access, while FPI can help to strengthen the process of domestic capital market development;
- Volatility: FPI is more volatile than FDI, although hedging behaviour by TNC subsidiaries can also exacerbate balance-of-payments crisis;
- Sustainability: FDI flows appear to be sustainable, while FPI is likely to be reduced, with portfolio investors becoming more selective as regards where to invest;
- Accessibility: only a handful of (the same) countries are hosts to large amounts of FDI and FPI.

40. What type of policy implications can be derived from these observations[28]?

(a) First, the complementarity between FDI and FPI would indicate that they are addressing different financial needs. In the case of FDI, TNCs assume the operational risks of their affiliates, while in the case of FPI, as seen earlier, there is some degree of risk-sharing between investors

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[28] For more detailed discussion and analysis of the policy implications , see UNCTAD: *Comprehensive study*.

and local issuers. If a country liberalizes only FDI and controls FPI, this could disadvantage local companies and deny them access to sources of external finance other than bank lending (which does not bring risk-sharing).

(b) Secondly, the high volatility of FPI requires that policies to attract FPI flows should proceed in a more cautious way. It is felt, mostly among emerging market countries, that, because international financial markets are inherently volatile and as long as there are no internationally agreed measures to cope with this volatility, countries should have some room of manoeuvre to shield their economies from the negative impact of capital flow volatility. Therefore, countries should be allowed to adopt measures (other than fiscal and monetary measures) to "fine-tune" capital inflows and outflows in order to avoid boom-bust cycles of capital flows, especially of portfolio investment. Strong domestic financial systems, regulations and supervision are essential elements to guarantee appropriate liberalization.

(i) On this particular point of appropriate capital liberalization, two policy issues should be given close consideration. The first set of issues concern the definition and coverage of investment in bilateral, regional or multilateral investment agreements. Considerable attention has been given to the issue of whether or not an investment agreement should cover FPI. Up to now, though FPI has been covered by many bilateral and regional investment agreements, there have been few or no theoretical or empirical studies on the rationale or implications of including or excluding portfolio investment in investment treaties.

Arguments in favor of including FPI in these treaties are the following:

- FPI should be protected as FDI is, especially against losses that could arise in the case of expropriation;
- It is difficult to have a clear-cut distinction between FDI and FPI;
- A further liberalization of investment regimes would be in line with the trend towards liberalization and globalization, thus promoting an efficient allocation of savings and lowering the costs and improving the quality of financial services.

Arguments against including FPI are the following:

- It would restrict the flexibility of policy-making by host-country Governments, especially concerning the liberalization of capital accounts;
- As financial sectors in most developing countries are weak, time is needed to strengthen the financial infrastructure and supervisory and regulatory standards as well as a domestic investor base, before completely liberalizing portfolio investments.

(ii) The second set of issues concerns the best practices for controlling the volatility of portfolio flows. At the international level, initiatives have been taken by the Bank for International Settlements to scrutinize bank lending to highly leveraged

investment funds, and by the Group of 7 (G-7) to establish a Financial Stability Forum with a view to identifying actions needed to address issues related to financial stability and systemic risk.

At the national level, in addition to efforts to strengthen domestic economic fundamentals, a variety of measures have been implemented by different countries: capital gains taxes differentiated according to the duration of investment; minimum stay of investment; reserve requirements on short-term inflows; control of short selling practices; segmentation of stock markets; ceilings on foreign investment and so forth. The question of national taxation policies deserves more careful analysis, not least because capital movements can be influenced by different tax regimes[29].

(c) And finally, what type of policies or support could be considered to enhance access by emerging markets to some types of portfolio investment which can provide relatively stable sources of finance, such as long- and medium-term bonds (internationally and domestically issued), primary equity issues, depository receipts, venture capital funds, country funds? Credit rating agencies have played an essential role in determining access to capital markets. It is therefore critical that sovereign risk rating should be subject to strict, objective parameters that are publicly known. Multilateral financial institutions have recently provided guarantees to assist some borrowers in Asian countries to restore access to the international bond markets. Can multilateral institutions generalize this policy of guarantees to a large number of countries, given the fact that it can be costly, as guarantees are booked as liabilities in an amount equivalent to that of loans? What other policies can be implemented to increase the access of a larger number of developing countries to stable sources of investment?

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[29] See Valpy Fitzgerald: "Global Capital Market Volatility and the Developing Countries", IDS Bulletin Vol.30, No.1, 199 (Institute of Development Studies, Sussex, 1999).